

**CITY OF MOUNTAIN VIEW  
MEMORANDUM**

DATE: December 2, 2010

TO: Council Environmental Sustainability Committee

FROM: Stephen P. Attinger, Environmental Sustainability Coordinator

SUBJECT: RESIDENTIAL ENERGY ASSESSMENT AND UPGRADE PROGRAM

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**RECOMMENDATION**

Approve staff's recommended approach to conducting residential energy assessments and upgrades.

**BACKGROUND AND ANALYSIS**

In May 2009, the City Council approved a proposed spending plan for the City's \$719,000 in Federal Energy Efficiency and Conservation Block Grant funds (ARRA stimulus funds). The proposed spending plan included the following activities:

1. Upgrading Rengstorff Park and Cuesta Park tennis court lights with energy-efficient bulbs (\$76,000).
2. Upgrading the Shoreline at Mountain View microturbines (\$300,000).
3. Providing free or subsidized residential energy assessments and simple efficiency device installations to Mountain View residents (\$343,000).

Staff is testing various high-efficiency lighting products for the tennis court project to determine which product(s) provide the best lighting results and reduced energy use, and will present a plan for replacing the microturbines to Council on December 7, 2010.

**Residential Energy Assessment and Upgrade Program**

In early June 2010, the Council Environmental Sustainability Committee (CESC) and members of the community provided feedback on the objectives and structure for a residential energy assessment and upgrade program. The feedback centered around the following comments: (1) the program should focus on the needs of homeowners, multi-family property owners and renters; (2) Tier 1 assessments should be offered as Tier 2 and Tier 3 upgrades can be expensive and disruptive to the homeowner; and

(3) there should be a multilingual outreach program. Staff released a Request for Proposals (RFP) in mid-July for a firm(s) to design and implement such a program. Three proposals were received, offering the following two different approaches.

- Approach A: Allocate a majority of the budget to a Tier 2/3 home upgrade rebate program that provides \$500 to \$1,000 (depending on the level of upgrade) each to approximately 150 residents. This City rebate would augment the existing PG&E rebate program which offers incentives from \$1,000 to \$3,500 for Tier 2/3 home energy upgrades. Allocate the remainder of the budget to providing: (1) no-cost, in-home Tier 1 energy assessments and installing simple efficiency devices, e.g., compact fluorescent light bulbs; and (2) rebates for upgrades by multi-family property owners.
- Approach B: Allocate a majority of the budget to providing: (1) no-cost, in-home Tier 1 energy assessments and installing simple efficiency devices, e.g., compact fluorescent light bulbs; and (2) an on-line tool/survey that assists residents with high energy bills identify the biggest bang-for-the-buck, simple actions to take to reduce energy usage. Allocate the remainder of the budget to providing rebates for upgrades by multi-family property owners.

Following careful consideration and evaluation of the merits of the methodologies offered by each of the proposers, staff recommends a program similar to "Approach B," primarily because Tier 2/3 upgrades generally cost \$5,000 to \$15,000, so even with rebates from PG&E and the City, the homeowner is still left with a large financial burden. In a depressed economy, this would likely be too high a bar for many residents. In addition, Approach B yields higher greenhouse gas reductions (as compared to Approach A) due to engaging a larger number of residents and targeting high-energy-using homes.

#### Program Objectives

The broad goals of the program include:

- Through improved residential energy efficiency and increased use of renewable energy, maximize the reduction in community-wide GHG emissions to meet the City's 2012 reduction goal and quantify the reductions.
- Provide a user-friendly experience for residents to attain energy assessments and perform upgrades.
- Engage residents in saving additional energy through behavior modification commitments.

- Educate residents about additional home energy saving resources available.
- Generate new jobs.

#### Target Participants

The City's residential energy assessment and upgrade program will be targeted at the following groups:

- Single-family homeowners (particularly in older and high-energy-use homes).
- Multi-family property owners.
- Single-family renters.
- Multi-family renters (with some focus on low-income).

#### Program Elements

Staff proposes a program that incorporates the following elements.

<b>Program Element</b>	<b>Description</b>	<b>Target Participants</b>	<b># of Homes</b>
Tier 1 Single-Family	A no-cost, in-home assessment based on an 80-point checklist that includes installing 6 to 7 simple efficiency devices (e.g., compact fluorescent lights, smart power strips, low-flow showerheads) and engages residents in making behavior change commitments.	Homeowners, Renters	250
Tier 1 Multi-Family	A no-cost, in-home assessment based on an 80-point checklist that includes installing 6 to 7 simple efficiency devices (e.g., compact fluorescent lights, smart power strips, low-flow showerheads) and engages renters in making behavior change commitments.	Renters	250
Schools	A competition to see which local schools can generate the highest rate of household participation in the program.	Homeowners, Renters	1,000
Multi-Family Building Owner	In conjunction with the County, a pilot program that educates and provides modest rebates for building owners to make energy- and water-saving upgrades.	Building Owners	10 M/F Bldgs.

Program Element	Description	Target Participants	# of Homes
High-Energy Homes	A no-cost, "intelligent" on-line assessment that helps high-energy-using residents identify ways to reduce their energy use.	Homeowners, Renters	800
High-Energy PowerMeter Homes	Following an on-line assessment, enables high-energy-using residents to track their real-time energy use through installation of in-home monitoring devices.	Homeowners, Renters	200
Tier 2/3 Upgrades	Leverages the "Energy Upgrade California" program and provides information on: (1) which home upgrades to perform; (2) which rebates are available through PG&E, the State and the Federal government; (3) financing options; (4) how to select a contractor; and (5) how to apply for rebates and financing.	Homeowners	100
			2,610

A list of upgrades by "tier" is shown in Attachment 1.

#### Marketing and Outreach

To drive program participation, the City, through its recommended contractor (hereafter referred to as "City/contractor"), will promote the program using numerous tools and through multiple channels.

- **Branding:** In order to create an easily recognizable program and help avoid confusion in the marketplace, the City/contractor will leverage the State's "Energy Upgrade California" marketing campaign by branding its own program as "Energy Upgrade Mountain View."
- **Web Site:** The City/contractor will enhance its sustainability web site with comprehensive information on all program elements, including: (1) how to request an in-home Tier 1 assessment; (2) how to determine if you qualify for the high-energy homes program; (3) where to find detailed information on performing Tier 2/3 upgrades and applying for rebates (e.g., PG&E and State) through Energy Upgrade California; and (4) who to contact with questions.
- **Live Help:** The contractor will be available to field questions during business hours, with possible e-mail support in the evenings.
- **Social Marketing:** To augment the web site, the City/contractor will develop a social marketing program for Energy Upgrade Mountain View, including a

Facebook page. Target participants will include single- and multi-family property owners and renters, and specific industry professionals (e.g., home upgrade contractors) who will be in a position to extend the reach of the program.

- **Schools:** The City/contractor will utilize the power of community involvement and competition to encourage the families of schoolchildren to participate in the program. The Mountain View Educational Foundation has already indicated support for this program.
- **Marketing Collateral:** The City/contractor will develop education and outreach materials specific to the four target participant groups. All materials will be customized based on the participant's dwelling type and ability to perform further actions or upgrades.
- **Multicultural Outreach:** In conjunction with Community Outreach staff, the City/contractor will design targeted messaging using multilingual and multicultural media and techniques to reach Mountain View's English, Spanish, Chinese and Russian language communities.
- **Local Partnerships:** To extend the program's reach, the City/contractor will leverage local associations/groups and merchants, e.g., neighborhood associations, HOAs, faith groups, multicultural groups, Green Mountain View and local businesses.
- **Regional Coordination:** The City/contractor will coordinate program activities with the County, including the jointly developed Multi-Family Building Owner pilot program. All program messaging will be consistent with and leverage the County of Santa Clara and State upgrade campaigns around "smart energy use" in the home.

#### Financial Assistance

Through the Energy Upgrade California program, residents and property owners wishing to undertake Tier 2 and Tier 3 upgrades will have the following incentives available to help them offset some or all of the costs of the upgrades.

#### ***Rebate Programs***

PG&E offers rebates for either prescriptive (e.g., upgrading five specified items) or performance-based (e.g., attaining a 20 percent energy-efficiency improvement overall) home upgrades. The prescriptive rebate is \$1,000 and the performance rebate starts at

\$2,000 for a 20 percent efficiency improvement, adding \$375 for each additional 5 percent efficiency improvement.

For home and business water-efficiency upgrades, the Santa Clara Valley Water District currently offers rebates for the replacement/installation of items such as washing machines, water softeners, toilets and urinals, landscaping, irrigation equipment and submeters.

### *Financing Programs*

Residents will be able to apply for traditional private financing for more expensive home energy upgrades, including a new two-year "PowerSaver" pilot program to be rolled out by the Federal Housing Administration (FHA) in early to mid-2011.

FHA PowerSaver is a new financing option that will enable homeowners to make energy-saving improvements to their homes through affordable, Federally insured loans from private lenders. Homeowners will be able to borrow money for terms as long as 20 years to make energy improvements of their choice, based on a list of proven, cost-effective measures developed by FHA and the Department of Energy.

### Greenhouse Gas Savings

According to an inventory of the City's 2005 community-wide GHG emissions, the residential sector accounts for approximately 13 percent of emissions. The contractor has estimated the recommended program will reduce residential GHG emissions by approximately 2,500 metric tons of CO<sub>2</sub>e per year, which is a 2.5 percent reduction in residential emissions. The City's goal for reducing its community-wide emissions is 5 percent below 2005 levels by 2012, so the proposed program would achieve 50 percent of the desired *residential* emissions reductions. Staff has not fully verified the GHG reduction estimation, but will do so and make any adjustments before Council approval in January 2011.

### CONCLUSION

To help the City meet its 2012 community-wide GHG emissions reduction targets, the goal of the energy assessment and upgrade program is to engage residents in maximizing the reduction of energy use and GHG emissions through professional home assessments and upgrades. The recommended program achieves this goal by:

- Engaging a broad spectrum of the community (e.g., schools, neighborhood associations, faith and multicultural groups, volunteer organizations and businesses).

- Providing no-cost, Tier 1 energy assessments and instant energy-saving devices to every type of Mountain View resident; i.e., single- and multi-family property owners and renters.
- Helping residents identify the biggest bang-for-the-buck energy-saving actions.
- Targeting high-energy-using homes, where significant savings can often be realized inexpensively by addressing the "standby power" of many appliances.
- Helping residents who want to perform more costly Tier 2/3 home upgrades to understand what utility, State and Federal rebates and financing options are available.
- Achieving 50 percent of the residential GHG emissions reductions desired by 2012.

#### **NEXT STEPS**

Staff requests feedback from the CESC regarding the proposed residential energy assessment and upgrade program. If endorsed by the CESC, the program would be implemented according to the following schedule.

<b>Date</b>	<b>Action</b>
January 25, 2011	Present Contract to Council
Early February 2011	Project Kick-Off Meeting
March/April 2011	Roll Out Program to Mountain View Residents
December 31, 2012	Complete Program

PUBLIC NOTICING—Agenda posting.

Prepared by:



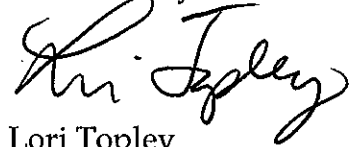
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Business and Internal Services Manager

SPA/7/PWK  
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Attachment: 1. Home Upgrades by Tier



## Attachment 1

### Home Upgrades by Tier—Sample List

Tier 1	Tier 2	Tier 3
Compact Fluorescent Lights (CFLs)	Attic Insulation	HERS II Audit—Looks at House as a "System"
Smart Power Strips	Wall Insulation	All Tier 2 Upgrades Deemed Cost Effective/ Applicable
Electrical Socket Insulators	Floor Insulation	Insulation Defects
Refrigerator Thermometers	Duct Sealing or Replacement	Duct Leakage
Retractable Clotheslines	Radiant Barriers	Thermal Barrier Defects
Faucet Aerators	Cool Roofs	Solar PV System
Low-Flow Shower Heads	Energy Efficient Windows	Solar Hot Water System
Programmable Thermostats	Building Envelope Sealing	Combustion Safety Hazards
Old Appliance Replacement (e.g., refrigerator, dishwasher, washing machine, etc.)	Old Appliance Replacement (e.g., A/C, furnace, water heater, etc.)	A/C and Furnace Installation Defects

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**CITY OF MOUNTAIN VIEW  
MEMORANDUM**

DATE: December 2, 2010

TO: Council Environmental Sustainability Committee

FROM: Lori Topley, Solid Waste Program Manager

SUBJECT: SINGLE-USE CARRYOUT BAG UPDATE

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The purpose of this memo is to provide the Committee with an update regarding efforts to reduce single-use carryout bags in Santa Clara County.

**State Legislation**

Legislation (AB 1998) was introduced in the California Legislature earlier this year. The bill would have instituted a State-wide ban on single-use plastic bags at grocery, liquor and convenience stores. The bill passed the Assembly but was defeated in the Senate on the last day of the session.

**County of Santa Clara**

In April 2010, the Board of Supervisors directed staff to develop an ordinance banning both paper and plastic single-use carryout bags at all retail stores located in the County unincorporated areas except restaurants, fast-food establishments and stores run by nonprofits (estimated to cover 50 businesses). An exception is provided for "green" paper bags, which are defined as those containing 100 percent recycled content material and sold by the business to the customer for no less than 15 cents per bag. The store retains revenue from bag sales. Consideration of the ordinance and a Mitigated Negative Declaration were scheduled for the Board meeting of December 7, 2010. However, the County announced the Board's consideration has been changed to an uncertain date, possibly in early 2011.

**City of San Jose**

In September 2009, the city council directed staff to develop an ordinance banning all single-use carryout bags except "green" paper bags, defined as those with a minimum of 40 percent recycled material content. As with Santa Clara and Los Angeles Counties, the store must charge a fee for the bag that would approximate the cost of the bag to the retailer. The revenue from bag sales would be retained by the store. City staff conducted an extensive public input process. A final Environmental Impact Report

(EIR) was certified by the San Jose Planning Commission on November 17, 2010. The city council is expected to consider adoption of an ordinance on December 14, 2010.

### **City of Sunnyvale**

The Sunnyvale City Council identified "Banning the Use of Plastic Grocery Bags throughout the City" as a 2010 council study issue. City staff conducted two public outreach meetings and a survey regarding a possible ordinance. Of 146 survey respondents, 58 percent were in favor of an ordinance banning single-use plastic bags and 42 percent were not. The majority of the survey respondents were Sunnyvale residents (92 percent). The remainder were Sunnyvale businesses (3 percent), and residents or businesses located outside Sunnyvale (5 percent). This information was presented to the city council at a meeting on November 16, 2010. The council directed staff to begin preparation of an ordinance that would ban single-use carryout bags in up to 125 retail stores (large supermarkets and pharmacies; other large retailers such as Orchard Supply, Macy's and PetSmart; and other food and beverage stores such as convenience stores, small groceries and liquor stores). The ordinance would ban plastic single-use carryout bags but allow paper bags with recycled content to be sold for 15 cents. Revenue from bag sales would be retained by the store. A budget of \$100,000 was approved for preparation of an EIR.

### **City of Mountain View**

Staff has developed a Bring Your Own Bag campaign in conjunction with Green Mountain View. The campaign is similar to one conducted in the City of Palo Alto. Green Mountain View volunteers will recruit stores to participate in the program in early 2011. Participating stores will be provided, free of charge, their choice of banners, signs and other materials that remind shoppers to bring their own bags. As soon as the materials are ready to be placed at the stores, staff will also prepare a press release, run *Mountain View Voice* and KMVT ads and perform other awareness outreach.

### **County of Los Angeles**

Action by the Board of Supervisors in the County of Los Angeles is notable as it is the first California jurisdiction to adopt a bag ban following preparation of an EIR. The Board certified a Final EIR and adopted an ordinance regulating single-use plastic and paper carryout bags on November 16, 2010. The ordinance bans the use of plastic carryout bags at all supermarkets, grocery stores, convenience stores, food marts, pharmacies and drug stores located in the county unincorporated areas (estimated to cover 1,000 businesses). Stores are allowed to provide paper bags with a minimum 40 percent recycled material content, but must charge the customer 10 cents per bag.

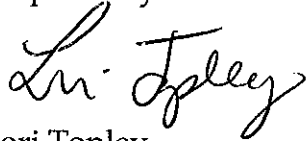
The store retains the revenue from bag sales. The ordinance goes into effect July 1, 2011 for larger groceries and pharmacies and January 1, 2012 for all other affected stores.

**California Environmental Quality Act (CEQA)**

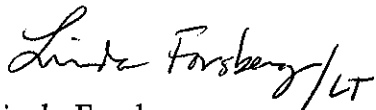
A city's obligations under CEQA have been key in the consideration and adoption of bag ordinances in California. Opponents have challenged bag bans using CEQA, and the courts have invalidated bag ordinances that were not evaluated by a full Environmental Impact Report. San Jose went to considerable time and expense to prepare an EIR and has already certified the final document. Santa Clara County prepared a Mitigated Negative Declaration but has not yet presented the document to the Board of Supervisors for consideration. Sunnyvale will determine the appropriate CEQA document needed based on preparation of an Initial Study and any updates to case law, but has budgeted for preparation of a full EIR.

Staff will continue to monitor how neighboring cities and other jurisdictions are moving forward with restrictions on single-use bags, and will use this information to determine when and how to bring the issue to the Council for consideration.

Prepared by:

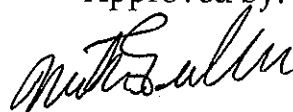


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